

Listing of Claims:

1. (Currently Amended) A data transmission method of a radio link system between a central station and at least one substation, comprising the steps of:

transmitting a time division multiplex signal during a first plurality of time slots at a first frequency from the central station; and

receiving, at the central station, signals ~~of~~ from said at least one substation during a second plurality of time slots at a second frequency, said second frequency being a different frequency than said first frequency and said signals of said at least one substation at said second frequency forming a time division multiple access signal; and

reserving at least one time slot from said first plurality of time slots or said second plurality of time slots for said at least one substation needing more traffic capacity than at least one second substation, said first plurality of time slots being different than said second plurality of time slots and substantially all of said time slots being used.

~~wherein each of said at least one substation receives, within an initial time period having time slots, at said first frequency during certain first time periods having one or more time slots and corresponding to a specific substation;~~

~~wherein said specific substation transmits, within said initial time period, at said second frequency during certain second time periods having one or more time slots corresponding to said specific substation such that said first time periods are different time periods than said second time periods; and~~

~~wherein said initial time period comprises timeslots in which the specific substation only receives at said first frequency from said central station and only transmits at said second frequency to said central station[.]]~~

2. (Currently Amended) The data transmission method of claim 1, wherein the central station controls the time ~~periods~~ slots used for transmission and reception by the substations.

3. (Currently Amended) A radio link system, comprising:

a central station comprising means for discriminating reception signals from transmission signals on a basis of frequency; and

at least one substation;

wherein the central station is configured so as to transmit a time division multiplex signal during a first plurality of time slots at a first frequency and receive a time division multiple access signal during a second plurality of time slots at a second frequency;

wherein the at least one substation is configured so as to receive signals at said first frequency during the first plurality of time slots and said at least one substation is arranged to transmit signals at said second frequency during the second plurality of time slots, said second frequency being a different frequency than said first frequency and said signals transmitted by said at least one substation at said second frequency being arranged to form said time division multiple access signal within an initial time period constituted of time slots, at said first frequency during certain first time periods having one or more time slots and corresponding to a specific substation and said specific substation is arranged to transmit, within said initial time period, at said second frequency during certain second time periods having one or more time slots and corresponding to said specific substation such that said first and second time periods are different time periods and signals transmitted by said at least one substation at said second frequency are arranged to form said time division multiple access signal; and

wherein the central station is configured to reserve at least one time slot from said first plurality of time slots or said second plurality of time slots for said at least one substation needing more traffic capacity than at least one second substation, said first plurality of time slots being different than said second plurality of time slots and substantially all of said time slots being used. ~~initial time period comprises timeslots in which the specific substation only receives at said first frequency from said central station and only transmits at said second frequency to said central station[.]]~~

4. (Currently Amended) The radio link system of claim 3, wherein the central station is configured to select said first and second plurality of time slots periods.

5. (Previously presented) The radio link system of claim 3, wherein the system is located in a GSM mobile communication system.

6. (Previously presented) The radio link system of claim 3, wherein the system is located in a UMTS mobile communication system.

7. (Previously presented) The radio link system of claim 3, wherein the system is located in a broadband data transmission system.

8. (Previously presented) The radio link system of claim 7, wherein the system is located in a LMDS system.

9. (Previously presented) The radio link system of claim 7, wherein the system is located in a HiperAccess system.

10. (Previously Presented) The method of claim 1, wherein uplink and downlink time slots are allocated according to traffic needs.

11. (Previously Presented) The radio link system of claim 3, wherein uplink and downlink time slots are allocated according to traffic needs.

12. (New) An apparatus for data transmission, comprising:

a transmitter unit arranged to transmit a time division multiplex signal during a first plurality of time slots at a first frequency;

a receiver unit arranged to receive signals from at one substation during a second plurality of time slots at a second frequency, said second frequency being a different frequency than said first frequency and said signals of said at least one substation at said second frequency forming a time division multiple access signal; and

a processing unit arranged to reserve at least one time slot from said first plurality of time slots or said second plurality of time slots for said at least one substation needing more traffic capacity than at least one second substation, said first plurality of time slots being different than said second plurality of time slots and substantially all of said time slot being used.